

ABSTRACT

5 A device for gravel packing, particularly designed for water wells, the device
having a generally vertical cemented casing (1) and a stop-sand liner hanger
(2), characterised in that said casing (1) comprises three elliptical balls (13)
located on the inner surface of the casing (1) at the same depth level adjacent
its bottom. The stop-sand liner hanger (2) comprises a gravel ports pipe (12)
and a gravel setting tool guide pipe (11) around which is fixed at the top end an
10 upper external stop-ring (4), below which are freely adjusted two rubber packers
(6, 8) between a rubber packer protection ring (5) at the top and a push-up ring
(9) at the bottom. The said rubber packers (6, 8) are being compressible by the
push-up ring (9) resting on the three elliptical balls (13) when said push-up ring
(9) is caused to slide up over the gravel setting tool guide pipe (11) against the
15 downwards action of the weight of underlying screens/liners (15, 14). This
compression increasing the external diameter of the rubber packers (6, 8)
sealing off the annulus (3) between the cemented casing (1) and the stop-sand
liner hanger (2).

20 (Figure 2)